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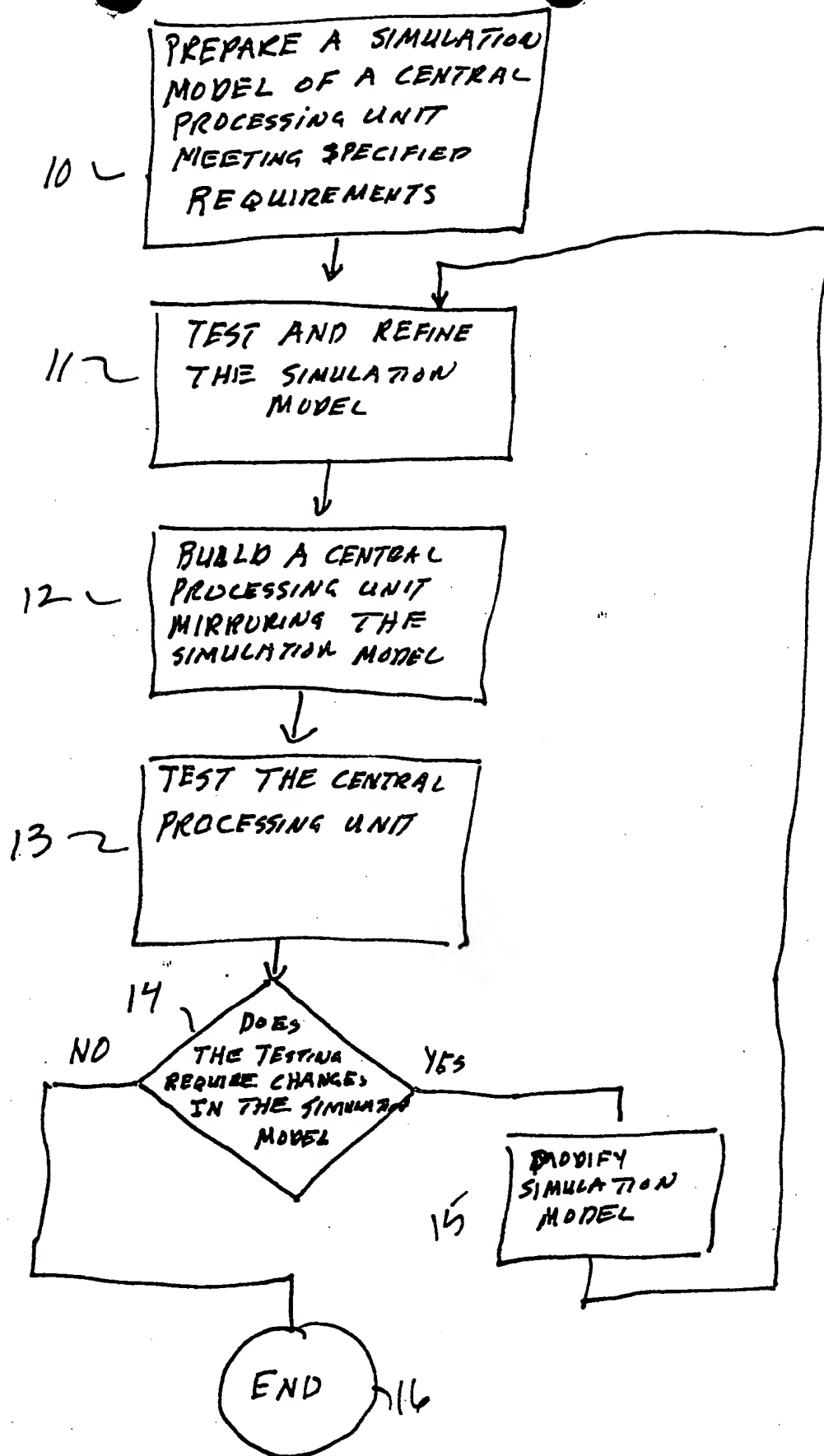


Fig. 1

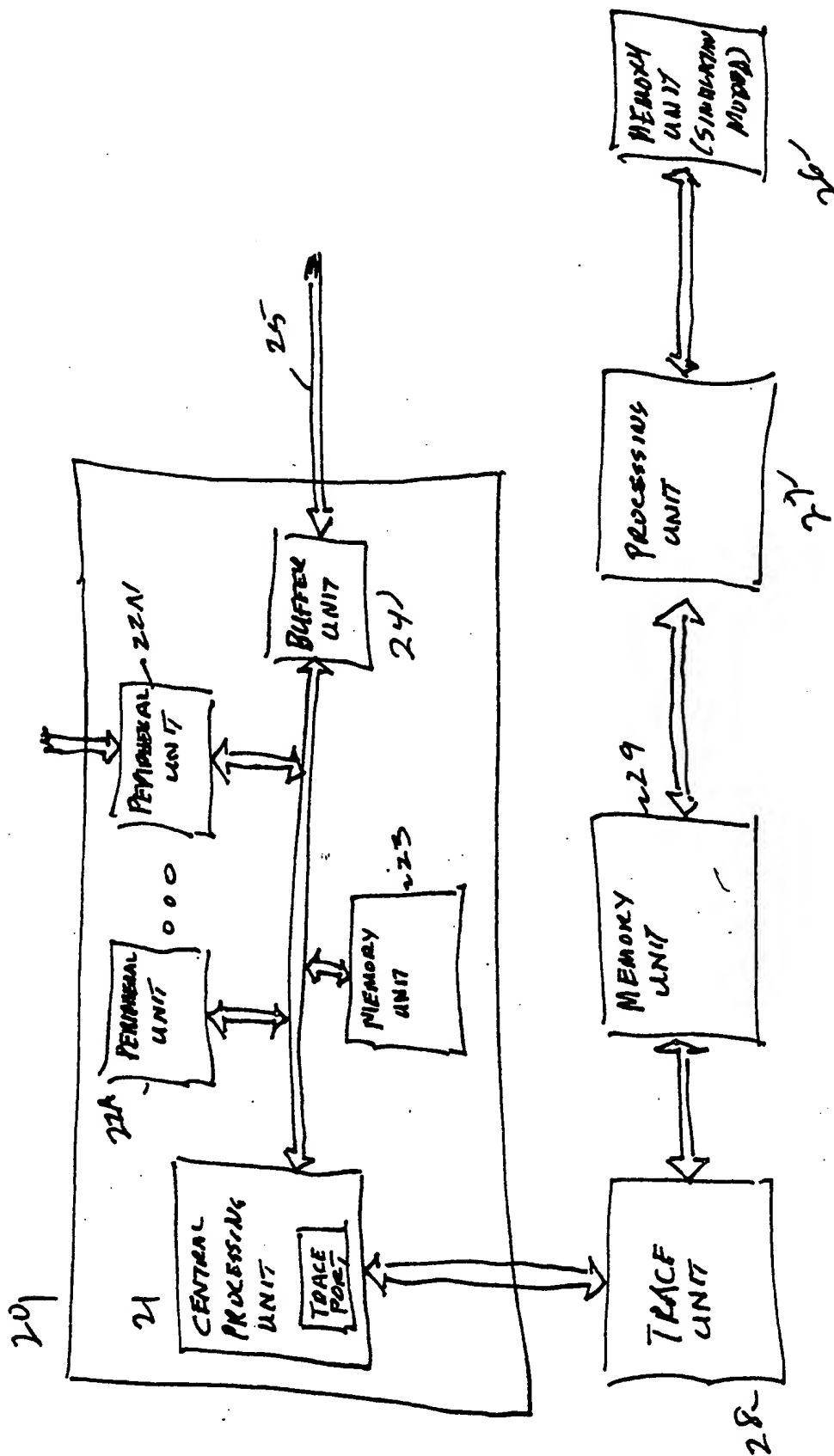


Fig. 2

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graph TD
    32[32 -> SAVE STATE OF THE CENTRAL PROCESSING UNIT] --> 33[33 -> EXECUTE THE PROGRAM BY THE CENTRAL PROCESSING UNIT]
    33 --> 34[34 -> USING TRACE COMPONENTS, DETERMINE INPUT AND OUTPUT SIGNALS AND MACHINE STALLS FOR EACH PROGRAM CLOCK CYCLE]
    34 --> 35[35 -> INITIALIZE STATE OF SIMULATION MODEL TO SAVED CENTRAL PROCESSING UNIT STATE]
    35 --> 36[36 -> APPLY INPUT AND OUTPUT SIGNALS TO THE SIMULATION MODEL TO DETERMINE STATE OF THE CENTRAL PROCESSING UNIT]
    36 --> 37[37 -> FROM THE STATE OF SIMULATION MODEL AND THE POWER DISSIPATED, DETERMINE POWER CONSUMPTION FOR EACH CLOCK CYCLE]
    37 --> 38[38 -> DETERMINE POWER CONSUMPTION AS A FUNCTION OF PROGRAM EXECUTION]
    38 --> 39[ADJUST PROGRAM TO REDUCE POWER CONSUMPTION]
  
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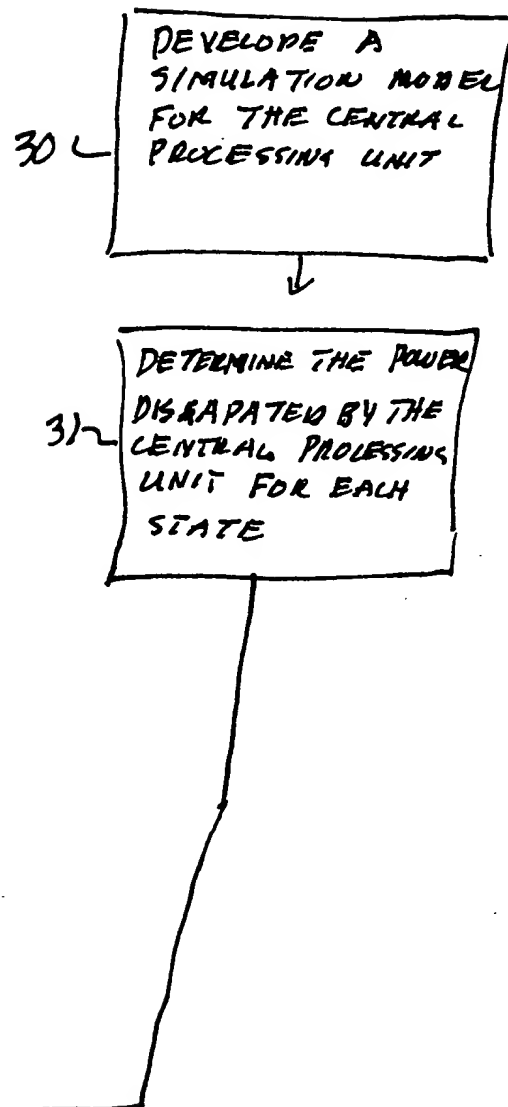


Fig. 3